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Chronic Low Income Among Immigrants in Canada and its Communities

by Garnett Picot and Yuqian Lu

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Abstract

This paper examines the rate of chronic low income among immigrants aged 25 or older in Canada during the 2000s. Chronic low income is defined as having a family income under a low-income cut-off for five consecutive years or more. A regionally adjusted low-income measure is used for the analysis. Among immigrants who were in low income in any given year, about one-half were in chronic low income. The highest chronic rates were observed among immigrant seniors, as well as immigrants who were unattached or lone parents. There were large differences in the chronic low-income rate by immigrant place of birth, even after adjusting for differences in other immigrant background characteristics. The chronic low-income rate was lower among economic class immigrants than among family or refugee classes, but the difference was reduced after adjusting for background characteristics. Chronic low-income rates among immigrants varied significantly across the 29 cities/regions in the study, varying by a factor of 5 between the highest and lowest rates. However, the community ranking was not static and changed significantly between the beginning and end of the 2000s.

Keywords: poverty, low income, immigration, poverty dynamics

Executive summary

Rates of low income among immigrants continue to be high relative to the Canadian-born population. Concern regarding low income is closely tied to its duration. If immigrant low-income spells are mostly of short duration, the negative effect on immigrants and society may be less than if they consist primarily of longer, more chronic spells. In this paper, chronic low income is defined as having a family income under a low-income cut-off for five consecutive years or more. The focus of this analysis is on immigrants during the 2000s who were in Canada for 5 to 20 years and over the age of 25.

Past research has focused primarily on new spells of low income and has asked how many subsequently became chronic. From this perspective, most new spells of low income among immigrants are not chronic, which is consistent with earlier research. However, this paper's primary goal is somewhat different. It focuses on the prevalence of chronic low income in any given year, its characteristics, and its variation across 29 cities/regions. Among immigrants who were in low income in any given year during the 2000s, approximately one-half were in chronic low income at that time.

The proportion of immigrants who were in chronic low income fell from 16.3% in 2004 to 12.3% by 2012. However, the chronic rate fell more quickly among the comparison group, which consisted primarily of the Canadian-born. As a result, the chronic low-income rate was 2.6 times higher among immigrants than the Canadian-born in 2000, and 3.3 times higher in 2012. In addition, chronic low income was found not to be restricted to more recently arrived immigrants. By 2012, there was little difference in the chronic low-income rate between immigrants who had been in Canada for 5 to 10 years and those in the country for 16 to 20 years.

The highest chronic low-income rates in 2012 were observed among immigrants over the age of 65. These relatively high rates—30% among all immigrant seniors[1] and over 50% among more recent immigrant seniors[2]—were in sharp contrast to the rate observed among Canadian-born seniors (about 2%). Immigrants who were unattached or lone parents also displayed higher-than-average chronic low-income rates. Country of origin also mattered, even after adjusting the rates for differences in characteristics such as official language and education at landing, years since immigration, immigrant class, age and family type.

Differences in the chronic low-income rate among immigrants with different levels of educational attainment were relatively small by 2012, in part because the rate had risen among those with a post-graduate degree, and fell among those with secondary or less between 2000 and 2012. The chronic low-income rate was lower among economic class immigrants than among the family class or refugees; it was 1.4 times higher among the family class and refugees. There was little difference between immigrant men and women, particularly after adjusting the rate for differences in background characteristics.

Immigrant chronic low-income rates varied significantly among the 29 cities/regions in the study, differing by almost a factor of 5 between the cities/regions with the highest and lowest rates. Of this variation, 40 % was due to differences among communities in immigrant background characteristics. The order of the communities was determined according to the chronic low-income rate of their immigrants. This rank ordering changed significantly between 2000 and 2012. In 2000, the one-quarter of the cities/regions with the lowest immigrant chronic rates were mostly in Ontario, but, by 2012, they were all in the Prairie Provinces. However, Canada's three largest cities were among the one-quarter of communities with the highest chronic rates in both 2000 and 2012.

1. In Canada for 5 to 20 years.
2. In Canada for 5 to 10 years.

The chronic low-income rate among the Canadian-born population in any city/region acts as a control for economic and policy effects that influence the chronic rate among immigrants. However, the chronic rate among the Canadian-born in a city/region is not a good predictor of the immigrant chronic rate in the same community. This analysis suggests that unobserved factors other than economic conditions, policy effects and immigrant background characteristics contribute to the differences in immigrant chronic low-income rates in a city/region.

1 Introduction

Rates of low income among immigrants have been a concern in Canada since the 1990s, when they rose to historically high levels. Among recent immigrants—those who had been in Canada 5 years or less—the low-income rate rose from 25%[3] in 1980 to 36% by 2000, and then fell by about 8 percentage points by 2010. Among immigrants who had been in Canada for 11 to 15 years, the rate rose from 15% in 1980 to 23% by 2000, and then declined by a couple of percentage points by 2010 (Picot and Hou 2014).

The immigrant low-income rate relative to that of the Canadian-born was somewhat different. During the 1990s the low-income rate rose among immigrants but fell among the Canadian-born. Hence, the low-income rate among recent immigrants was 1.4 times that of the Canadian-born in 1980, rising to 2.5 by 2000 and increasing further to about 2.7 by 2010.

Concern regarding low income is closely tied to its duration. If most low-income spells are short, families may not experience negative effects to the same extent if spells were longer. Thus, it is important to know to what extent the low-income rate in any given year consists of transient or chronic low income.

Little research has been conducted in Canada on persistent low income among immigrants, particularly since 2000 when the low-income rate started to fall. Hatfield (2004) produced an analysis of persistent low income that focused on vulnerable groups. He concluded that "recent" immigrants were one of the five groups in Canadian society most vulnerable to persistent low income during the 1990s. They were 7.5 times as likely to be in persistent low income as Canadians who were not in one of the five high-risk groups. Picot, Hou and Coulombe (2008) also focused on recent immigrants, but looked at overall low-income dynamics (entry, exit and duration) among immigrants entering Canada. They found that about two-thirds of immigrants entering Canada experienced at least one year of low income during their first 10 years in the country. Among the immigrant cohorts entering Canada in the mid-1990s, around one-quarter of the low-income spells lasted 5 years or more, indicating that the majority of the *new* spells were of shorter duration. However, the analysis did not account for multiple spells of low income, focusing only on the first spell. Also, it did not examine the extent to which low income in any given year was composed of transient or persistent low income.

There are numerous ways to approach the study of persistent low income. Section 2 of this paper outlines the approach used here to measure both annual and chronic low income. The goal is to produce reliable estimates at both the national and city/region levels. Section 3 presents results.

2 Measuring chronic low income and data sources

This paper employs data from the Longitudinal Immigration Database (IMDB) for the period from 1993 to 2012. The IMDB is a longitudinal database constructed using T1 tax records and the landing records of all immigrants who have entered Canada since 1980. About 95% of the working-age population in Canada files a tax return. Since only immigrants who have entered Canada since 1980 can be identified in the IMDB, and the reference period starts in 2000, the analysis is restricted to immigrants in Canada for 20 years or less. Data from the Longitudinal Administrative Data (LAD) base are used to produce results for a comparison group that includes the Canadian-born plus immigrants who have been in Canada for more than 20 years. Both the immigrant and comparison-group populations are restricted to persons 25 years of age or older because of lower taxation coverage rates among the younger population.

3. Based on census data and using Statistics Canada's low-income cut-off (LICO), as well as after-tax and after-transfer family income.

The low-income measure is based on the census family, which includes all persons in the immediate family.[4] The after-tax and after-transfer family income[5] of census families is used in this analysis. The family income is adult-equivalent adjusted.[6] This technique is used to adjust family income for differences in family size. The adult-equivalent adjusted income is a per capita income representing the resources available to each family member, after accounting for differences in family size. Hence, the unit of analysis in this study is the individual, and each individual has an adjusted family income. All members of the same family have the same adjusted family income. In any given year, an individual is in low income if his or her annual adult-equivalent adjusted family income is below the low-income cut-off.

2.1 A regionally adjusted Low Income Measure

There are a number of issues to consider when choosing how to measure an annual low-income rate. They are summarized in Appendix A. For this paper, one of the most important is how to reflect the regional variation in the cost of basic necessities in the regional low-income cut-off. For example, one might use a national Low Income Measure (LIM) (one-half of the median income of Canadians) as a cut-off and apply it to family incomes in all communities. It does not account for regional variation in the costs of necessities. In this case, the low-income rate will be overestimated in cities where the basic necessities are less expensive. That is because the amount of, say, food or shelter that can be purchased with an income at the level of the low-income cut-off will be greater in cities with lower living costs. To overcome this issue, a new measure is developed in this paper—a regionally adjusted LIM, or simply "adjusted LIM." This measure takes advantage of important properties of the Market Basket Measure (MBM).

The MBM was developed in the early 2000s (see Statistics Canada [2013]). A recent review of the MBM noted that the MBM was designed "...to provide a more intuitive and transparent measure of low income based on a basket of goods and services representing a modest, basic standard of living....The MBM also provided a measure more sensitive to regional differences in living costs, particularly for shelter and transportation, than the LICOs and the LIM" (Hatfield, Pyper and Gustajtis 2010, p. 1). The MBM approach measures the cost of a standard basket of goods and services that provide a "modest and basic" standard of living in various cities. Based on that measure, a low-income cut-off for a family of four is determined. The cut-off varies by region, depending on the cost of basic necessities.

The regionally adjusted low-income measure used in this paper for a particular city/region is simply the national LIM multiplied by a city-specific adjustment factor to account for differences in the cost of basic necessities. In this work, the national LIM is one-half of the median adult-equivalent adjusted income of Canadians over the period from 1993 to 2012.[7] The regional

4. More distant relatives, such as grandparents and aunts/uncles, as well as others not related to the immediate family but living in the same household, are excluded from the definition and would be considered separate families. Data on economic families, which include the immediate family and others in the same household who are related, are not available using these data sources.
5. This includes earnings, during any given year, from paid jobs or self-employment and any other market earnings, pension income, investment income, all direct government transfers (e.g., employment insurance payments, social assistance) and other income sources for all family members. Income taxes paid are deducted. This is the best estimate of disposable income available for the purposes of this study.
6. For any given family, the total after-tax and after-transfer family income is divided by the square root of the family size to arrive at the adult-equivalent adjusted income for that family. Everyone in the family has the same adult-equivalent adjusted income. This is essentially a per capita income for each family member after economies of scale associated with family size are accounted for (e.g., per capita fixed costs such as housing are lower for larger families than smaller families). The adult-equivalent income represents the economic resources available to each family member after adjusting for family size and assuming that economic resources are shared equally among all family members.
7. In 2012, the national LIM was 17,200 adult-equivalent adjusted dollars. For a family of four, that means that LIM in unadjusted dollars for the family as a whole would be $34,400. In comparison, LICO for 2012 for a family of four in a large Canadian city was $37,050.

adjustment factor for a particular city/region is simply the 2012 MBM cut-off value for that city/region divided by the average MBM cut-off for Canada as a whole.[8] Cities/regions with high costs of basic necessities will have adjustment factors above 1.0, while those with lower costs will have values below 1.0. The adjusted LIM is produced for 29 cities/regions. The adjusted LIM is fixed for all years. Each individual's adult-equivalent adjusted income for any given year is used to determine whether they fall below the adjusted LIM. Income is in constant dollars (adjusted for changes in the Consumer Price Index). Hence, this paper uses a fixed low-income cut-off that is constant through time for any given city/region.

Chart 1-1 to Chart 1-4 shows—for each city/region in the analysis—how the adjusted LIM compares to other commonly used low-income cut-offs, including the MBM, the Canadian-level LIM and a "local" LIM. The last measure estimates the cut-off as 0.5 of the median income[9] **for each city/region**. This approach is based on the assumption that local income levels reflect local standards of living for each city/region. The salient observations include the following:

- The local LIM (0.5 median income in each city/region) displays more regional variability than the other measures, and much more than the MBM. The local LIM likely exaggerates differences in the low-income cut-offs that are driven by regional differences in living costs.
- The Canadian-level LIM underestimates differences in the low-income cut-off associated with living costs (since it does not attempt to capture such differences), and hence would overestimate low-income rates in cities with lower costs of the basic necessities.
- The adjusted LIM reflects (by definition) the regional differences in living costs embedded in the MBM. The relative values of the adjusted LIM, among regions, are the same as those for the MBM. For example, the adjusted LIM is higher in cities such as St John's, Toronto, Ottawa–Gatineau, and most cities/regions in Alberta and British Columbia than for Canada as a whole, and lower in most Quebec cities/regions (including Montréal) and many smaller Ontario cities/regions.

2.2 Measuring chronic low income

2.2.1 Should the focus be on new spells or all spells in a given year?

Annual low-income rates for communities are generated using the approach outlined above. But it is necessary to convert these rates to a chronic low-income measure. The first issue is whether to focus on *new* low-income spells or *all spells in any given year*. The two approaches provide very different answers.

Two basic facts that appear, at first glance, to be contradictory have evolved from the low-income dynamics research of the 1980s. A large percentage of those who are in low income at any point in time are living in long-term or chronic low income. However, new spells of low income are quite short, with only a small percentage warranting the label of persistent or chronic (Rodgers and Rodgers 1993). These two facts stem from very different ways of approaching the measurement of chronic low income. The latter conclusion is based on an analysis of new spells of low income and assesses the duration of these new spells. This research finds that most new spells among the general population tend to be short, with very few long spells (Bane and Ellwood 1986; Ruggles and Williams 1989). The second approach focuses on a point in time and asks, of those in low income in that year, how many have been in low income long enough for it to be considered chronic. This research finds that a substantial proportion of people who are in low income at a point in time are living in chronic low income. For example, Finnie and Sweetman (2003) found

8. An MBM cut-off is not produced for Canada as a whole in the MBM program; therefore, it is estimated by taking the weighted average of the MBM cut-off values for all cities/regions in Canada. The weight is the population of the city/region.
9. Adult-equivalent adjusted.

that, in Canada, the "always poor" (poor over a period of five-years or more) constituted around 40% of the low-income population in any given year during the early 1990s.

This paper produces estimates of the extent to which low-income spells are chronic for both new low-income spells, and the low-income spells that exist in any given year. A low-income spell is considered to be chronic if it lasts for 5 or more consecutive years. Why five consecutive years of low income? This is in part because it is in common usage for Canada (Finnie and Sweetman 2003) and in papers by the Chronic Poverty Research Centre (CPRC) for Britain. After studying various methods and analytical frameworks, the CPRC concluded that five consecutive years of poverty is a reasonable definition of chronic poverty. Five years is perceived to be a long period of time in a person's lifespan, so five years of poverty can have a significant effect on other outcomes. In addition, the CPRC reported that people who were in poverty for at least five consecutive years had a significant probability of remaining in poverty for an extended period of time (Hulme, Moore and Shepherd 2001).

3 Results: Chronic low income among immigrants during the 2000s

3.1 Are immigrant low-income spells chronic or transient?

This paper starts by focusing on *new spells* of low income. These new periods may start just after an immigrant arrives in Canada or after the immigrant has been in the country for many years.

Among immigrants[10] in low income during their first full year in Canada, from one-third to two-fifths of their spells were chronic, in the sense that they lasted at least all of the first five years in Canada. About one-half of these immigrants experienced more transient low income—they were in low income for three years or less during their first five years in Canada.

Immigrants who have been in Canada many years can also have new spells of low income. It is assumed that a period of low income is new if immigrants were not in low income for four consecutive years prior to entering low income—when their family income fell below the low-income cut-off. Among immigrants[11] in Canada for 5 to 20 years, about 20% of the new spells were chronic, lasting for at least five consecutive years.[12] About two-thirds of the new spells were transient; these immigrants were in low income for three years or less during the five years following their entry into a new low-income spell.

In the second approach to the measurement of chronic low income, the focus is on how many of the immigrants in low income in, for example 2012, were in chronic low income (i.e., in that state for five or more consecutive years up to and including the year of interest, here from 2008 to 2012 inclusive). From this point on, the paper concentrates on this approach. If the interest is in, say, reducing the low-income rate in any given year, the policies and programs considered will vary, depending upon whether the low income is predominantly chronic or transient. Hence the focus on chronic low income in a given year.

In 2012, 51% of the immigrants in low income were in chronic low income.[13] Put another way, one-half of all immigrants who found themselves below the low-income cut-off in 2012 had been there for at least five consecutive years, many for much longer (Table 2, far right column). This

10. Aged 25 and over.
11. Over the age of 25 and in Canada for 5 to 20 years. This population was selected so that it matches that used in the second approach described in the next paragraph.
12. Up to and including the year of interest.
13. This calculation is based on low-income immigrants who filed taxes over all four years prior to 2012. It excludes the roughly 12% of low-income immigrants who did not file taxes in all five years.

percentage was relatively stable over the 2000s. Furthermore, the share of low-income immigrants who were in chronic low income varied little by length of time in Canada—it was roughly one-half among both longer-tenured immigrants (in Canada for 16 to 20 years) and more recent immigrants (in Canada for 5 to 10 years).

The chronic component of low income was higher among immigrants than the Canadian-born. In 2012, around 43% of the comparison group that was in low income was in chronic low income, compared with one-half of all immigrants.[14]

But during any given year, there are two kinds of chronic spells—those that are already chronic (i.e., the immigrant was in low income for at least five years up to and including the reference year), and those that will become chronic. Up to this point, the analysis has focused on the already chronic spells—but immigrants may be in a low-income spell that is less than five years in duration but will ultimately last five or more years (i.e., the spells have been right truncated). In essence, these immigrants are in chronic low income but do not yet know it. When such spells are also considered to be chronic, the share of low-income immigrants who are in chronic low income in any given year increases from one-half to roughly two-thirds.[15] Chronic low income constitutes a large part of the low-income rate in any given year, whether the focus is on spells that are already chronic, or spells that will ultimately become chronic.

3.2 The prevalence of chronic low income

As noted earlier, an individual is in chronic low income in a given year if he or she is in low income[16] for at least five consecutive years up to and including the year of interest. The chronic low-income *rate* is the proportion of all individuals in any given group who are in chronic low income.[17] Salient points regarding immigrant[18] chronic low income include the following:

- During the 2000s the chronic low-income rate among all immigrants[19] peaked at 16.3% in 2004 and declined to 12.3% by 2012 (Table 1). However, the 22% decline in chronic low income among immigrants between 2000 and 2012 was less than that observed among the comparison group[20] (mainly the Canadian-born), which fell by 39%, from 6.1% to 3.7% over the period.
- By 2012, chronic low income was almost as prevalent among longer-tenured immigrants as among recent immigrants—the improvement in chronic low income over the 2000s was concentrated among more recently arrived immigrants. It was among this group that economic outcomes appeared to have improved most. For example, the chronic low-income rate fell by about one-third among immigrants in Canada for 5 to 10 years, while it increased among those in Canada for 16 to 20 years. Overall, the difference in chronic low-income rates that existed between recent entrants and longer-term immigrants had largely disappeared by 2012.

14. Immigrant aged 25 who were in Canada for 20 years or less.
15. The focus was on immigrants who were in low income in 2006, since it was necessary to look back five years as well as move forward five years. The sample included immigrants who filed tax returns in all years from 2002 to 2010 inclusive. This restriction reduced our sample of immigrants by about one-half. An immigrant in low income in 2006 was considered to be in chronic low income if there was a spell of five consecutive years or more from 2002 to 2010 that included 2006.
16. That is, the individual's adult-equivalent adjusted income was below his or her city's/region's low-income cut-off in each of the five years. The cut-off is the regionally adjusted LIM (see Subsection 2.4). The adjusted LIM is fixed over time. After-tax and after-transfer family income (in constant dollars) is adult-equivalent adjusted to account for differences in family size. The unit of observation is the individual.
17. For example, the chronic low-income rate for, say, 2010, is the number of individuals aged 25 and older in low income in 2010 who were in that state for at least all years from 2006 to 2010 (inclusive), divided by the population aged 25 and older in 2010.
18. Immigrants aged 25 and older, and in Canada for 5 to 20 years.
19. Over the age of 25 and in Canada for 20 years or less.
20. The Canadian-born plus immigrants who had been in Canada for more than 20 years.

- While the absolute level of chronic low income among immigrants fell, its level relative to the Canadian-born increased. In 2000, the immigrant chronic low-income rate was 2.6 times that of the comparison group; by 2012, it was 3.3 times higher. Even among immigrants in Canada for 16 to 20 years, the chronic low-income rate remained well above that of the Canadian-born. In 2000, it was 1.7 times higher, and by 2012, 3.1 times higher. Time spent in Canada did little to diminish the rate of chronic low income among immigrants relative to the Canadian-born.[21]

3.3 Among which groups is chronic low income highest?

The observations below are based on the raw, unadjusted data, and represent the actual variation among groups. However, some of this difference may result from differences in background characteristics. Hence, a logistic regression is used to estimate the probability of being in chronic low income after accounting for differences in such characteristics. These rates are referred to as **adjusted** chronic low-income rates. The characteristics used in the analysis are gender, years since immigration, immigrant class, age, family type, education level at landing, place of birth, official language at landing, and geographic location in Canada. The salient points are provided below.

- **Age differences:** Immigrants over the age of 65 had the highest rates of chronic low income in 2012, at around 30%. This was roughly three times higher than the rate among immigrants aged 25 to 54 (Table 3-1). Among immigrant seniors in Canada for 5 to 10 years, over one-half (56%) were in chronic poverty in 2012 (Table 3-2). This is in sharp contrast to the older population in the comparison group (mainly the Canadian-born), who displayed the lowest chronic low-income rate of all age groups, at only 1.9% (Table 4). The result for the Canadian-born is not surprising, since Canadian seniors have displayed the lowest low-income rates of any age group for many years. The high rates among immigrant seniors are not explained by their background characteristics. Even after controlling for differences in the characteristics listed above, the chronic low-income rate among immigrant seniors remained 3.6 times higher than that among comparable immigrants aged 25 to 34 (Table 5).
- **Family type differences:** There was also a large difference in chronic low-income rates by family type. Unattached individuals and lone parents had rates around 20% to 25%, which was about twice as high as the rate among attached immigrants, with or without children (Table 3-1). However, from 2000 to 2012 the rate of chronic low income fell from 27% to 20% among immigrant lone parents.
- **Place of birth differences:** There was significant variation in chronic low-income rates among immigrants from different places of birth. In 2012, immigrants from Northwestern Europe, the Philippines, Australia, New Zealand and the United States had rates in the 4% to 5% range, while those from East and South Asia had rates in the 17% to 19% range—roughly four times higher (Table 3-1). Some of this difference may be explained by differences across places of birth in terms of education level at landing, official language at landing, family type, years since immigration, immigrant class, or geographic location in Canada. However, even after controlling for differences in these and other characteristics,

21. Some of the convergence in chronic rates between recent and longer-tenured immigrants could be due to changes in the characteristics of immigrants—defined by age, education, place of birth, family type, place of residence, etc.—between 2000 and 2012. To account for such a possibility, a regression approach was used to compute adjusted chronic rates for 2012 that control for differences in immigrant characteristics between recent and longer-tenured immigrants (Table 11-1). Based on the raw data, the chronic rate in 2012 among immigrants in Canada for 5 to 10 years was only 1.2 times that for immigrants in Canada for 16 to 20 years. Based on the adjusted rate (controlling for differences in characteristics), the rates between the two groups were more dissimilar, differing by a factor of 1.7. Therefore, some of the change in the composition of entering immigrants over the study period did account for part of the convergence on the chronic low-income rates.

about three-quarters of the place of birth difference in chronic low-income rates remained (Table 5).

- **Years since immigration:** It is well known that immigrants' economic outcomes improve with years in Canada. In 2012, however, there was little difference in the chronic low-income rates between those in Canada for 5 to 10 years (13.3%) and 16 to 20 years (11.5%) (Table 1). Chronic low income was not restricted to recent immigrants. The unexpectedly high rates of chronic low income among immigrants in Canada for 16 to 20 years was partly due to compositional characteristics. The adjusted rates among the longer-tenured immigrants (9.5%) were about 0.6 times those of immigrants who had been in Canada 16 to 20 years (Table 5), compared with an unadjusted rate that was 0.8 times higher. Immigrants in Canada for 16 to 20 years were one of the few groups for whom chronic low-income rates rose from 2000 to 2012 (Table 1).
- **Gender differences:** In 2012, the chronic low-income rate among female immigrants (at 13.8%) was roughly 1.3 times the rate for men (10.6%) (Table 3-1). Much of this was due to differences in background characteristics. Once the rates were adjusted for such differences, the rate of chronic low income was 1.1 times higher among women than men (Table 5).
- **Official language differences:** Official language at landing matters, but not as much as first appears. Chronic low-income rates were about twice as high among immigrants who spoke neither English nor French at landing than among those who spoke both official languages (Table 3-1). This difference was accentuated among recent immigrants, for whom language at entry had a larger effect. Among immigrants in Canada for 5 to 10 years, those without knowledge of either English or French had a chronic low-income rate of around 20% in 2012, almost three times higher than the rate among their counterparts with knowledge of both English and French (Table 3-2). Since knowledge of official languages correlates with variables such as place of birth and education, it is difficult to independently estimate its effect. However, after adjusting for differences in factors such as place of birth, level of education, family type, and location in Canada (Table 5), the rate among immigrants with no knowledge of English or French at landing was 1.4 times that of immigrants with knowledge of both languages, considerably less than the unadjusted results.
- **Education level at landing:** In 2012, there was not a large difference in chronic low-income rates by education level at landing. The rates for those with a secondary school education were 1.7 times higher than for those with a university degree. Much of this was associated with differences in other characteristics. The adjusted rates were only 1.1 times higher for those with a secondary school education than for those with a **non-university** postsecondary education (Table 5).
- **Immigrant class differences:** It is well-known that family class immigrants and refugees typically earn less than economic class immigrants[22] and their chronic low-income rates reflect this difference. There was little difference between the family class and refugees. The most notable difference, however, was in the chronic low-income rates among provincial nominees (at 5.9%) and other economic class immigrants (at 10.2%). This is not surprising given that provincial nominees tend to earn more than other economic class immigrants, such as federal skilled workers, largely because they are far more likely to have Canadian work experience prior to landing (Pandey and Townsend 2013; Hou and Picot 2016). After controlling for differences in other variables, most of the difference in the chronic low-income rates between the Provincial Nominee Program and other economic class immigrants disappears (Table 5).

22. Including principle applicants and spouses and dependents.

3.4 Chronic low income among immigrants by community

A number of factors may drive the differences in chronic low-income rates among immigrants in different cities and regions. Economic conditions vary across cities and regions, with implications for earnings and low income. Economic integration may be difficult in cities that attract very large numbers of immigrants, such as Montréal, Toronto and Vancouver, even with a strong economy. In addition, compositional effects may play a role as specific communities tend to attract immigrants from particular places of birth and rates of low income vary by places of birth. The distribution of immigrants by class (i.e., economic, family, refugee) may also vary across communities and thus affect chronic low-income rates.

For the purposes of this analysis, Canada is divided into 29 cities and regions. The regions are selected so that the sample of immigrants in each area is sufficient to provide robust estimates of chronic low income.

There was considerable variation in chronic low-income rates across communities. In 2012, the rates of chronic low income among immigrants varied from just over 3% in rural Alberta (that is, the province of Alberta excluding Calgary and Edmonton) and rural Manitoba (that is, the province of Manitoba excluding Winnipeg) to 16% in Windsor and 15% in Vancouver, the latter rates being 5.3 times higher than the lowest rate (Table 6-1). Differences in immigrant characteristics between cities/regions accounted for about 40% of the difference in chronic low-income rates. The "adjusted" highest and lowest chronic low-income rates across cities/regions differed by a factor of 2.8, whereas the unadjusted rates yielded a difference of 4.6 (Table 8). The ranking of cities/regions according to their chronic low-income rate was not static. In 2000, the rate of chronic low income among immigrants was lowest in the east, not the west, with a rate of 5.3% in Guelph and 20.6% in Vancouver (Table 6-1).

An alternative approach is to place the cities/regions in quartiles (Table 9). In both 2000 and 2012, the one-quarter of communities with the **highest** chronic low-income rate among immigrants included the three largest immigrant-receiving cities: Montréal, Toronto, and Vancouver. Other than that, there was no stable pattern across years in the ranking of communities.

The pattern in 2012 was clear: the lowest chronic low-income rates among immigrants were found in the Prairies. The one-quarter of communities with the **lowest** chronic low-income rates among immigrants included: Winnipeg; the rest of Manitoba; Regina; the rest of Saskatchewan excluding Saskatoon; Calgary; Edmonton; and the rest of Alberta. All Prairie communities had rates below 5.7%, that is, one-half or less of the Canadian average of 12.3%. The lower rates observed for the Prairies may be related to better relative economic conditions in 2012, greater use of the Provincial Nominee Program, and the historically lower supply of immigrants in these communities. It should be noted, however, that these rankings were not static. In 2000, the one-quarter of communities with the lowest rates were largely in Ontario; Winnipeg and Regina were the only communities from the Prairies to make the list.

3.5 Do inherent differences among communities explain differences in low income among immigrants?

Economic conditions vary among cities/regions. Furthermore, differences in social assistance and other policy differences between provinces can affect the rates of low income in communities in different provinces. To "control" for such differences, the study turns to the comparison group (mainly Canadian-born). The chronic low-income rate for the comparison group acts as a control for economic and policy differences between cities/regions that affect chronic low-income rates.

In almost all communities, chronic low-income rates were lower among the comparison group than among immigrants in 2012, and a similar variation was observed among cities. Comparison

group rates ranged from 1.3% in Edmonton to 6.0% in New Brunswick, a rate 4.6 times higher than the lowest rate (Table 7). However, the communities with the highest rates of chronic low income among immigrants were not necessarily those that had the higher rates overall (among the comparison group). This can be seen by comparing Tables 7 and 9.

For 2012, the correlation coefficient (R squared) between the immigrant and comparison group rates at the community level was only 0.06. That is, only 6% of the variation in the chronic low-income rates among immigrants can be accounted for by differences among communities in the comparison group rates.

Some of the differences in the chronic low-income rates among immigrants observed between communities were due to differences in immigrant background traits, such as language, years since immigration, and immigrant class, as noted earlier. To account for this possibility, the study uses the adjusted (predicted) chronic low-income rates among immigrants in Table 8 and compares them with the comparison group rates. The R squared increases as one would expect, but only to 0.14. The communities with low (or high) overall chronic low-income rates were not, for the most part, those with low (or high) immigrant chronic rates. Other unknown factors affect chronic low-income rates among immigrants in the communities.

This can be seen in the gap in the chronic rates between immigrants and comparison groups. If the immigrant rate mirrored the comparison group rate in most communities, there would be little variation in the gap between immigrants and comparison groups; most communities would have roughly the same value. However, that is not the case (Table 10-1, 10-2).

3.6 Community trends from 2000 to 2012

In the period from 2000 to 2012, the chronic low-income rate among immigrants in Canada peaked in 2004, at 16.3%, falling to 12.3% by 2012. Most communities followed this national trend. Only in Guelph and Windsor did rates rise, and the increases observed in those cities were small (Table 6-1). What set communities apart was the magnitude of the decline. The one-quarter of communities with the largest decline in chronic low-income rates included Québec City (where the rate in 2012 was only 37% of the rate at the peak), Manitoba excluding Winnipeg (27%), rural Saskatchewan (48%), Calgary (43%), Edmonton (42%), and rural Alberta (38%). Not surprisingly, with the exception of Québec City, the Prairie Provinces experienced the largest gains. Once again, this is likely related to rising labour demand and the use of the Provincial Nominee Program, among other factors.

The communities that saw little improvement in the chronic low-income rates among immigrants between 2000 and 2012 were virtually all located in southern Ontario, including Oshawa, Toronto, Hamilton, St. Catharines–Niagara, Kitchener, Guelph, London, and Windsor (Table 6-1). Over the same period, the share of new immigrants moving to Toronto and the surrounding regions declined significantly, while the share going to the Prairies increased (Bonikowska, Hou, and Picot 2017).

4 Conclusion

This study finds that between 2000 and 2012 "new" spells of low income among immigrants were more likely to be transient than chronic. Only about one-fifth of these spells lasted five years or more. This is consistent with earlier research on low-income dynamics. However, with respect to immigrants who were in low income in any given year, about one-half were in chronic low income while about one-third were in transient low income. When one includes spells of low income which became chronic in subsequent years, the share of immigrants in chronic low income in a given year rises to about two-thirds. Hence, at any point in time, chronic low income is a large component of overall low income among immigrants.

The chronic low-income rate among immigrants fell through most of the period from 2000 to 2012. This occurred within a context of declining low-income rates in Canada overall. However, rates fell faster among the Canadian-born. Consequently, chronic low-income rates of immigrants **relative** to the Canadian-born rose over the period, although not to the same extent among all immigrant groups. Notably, rates rose among immigrants in Canada for 16 to 20 years, and by 2012, there was little difference in the chronic low-income rates between recent and longer-tenured immigrants.

In 2012, the highest chronic low-income rates were observed among immigrants over 65. These high rates—30% among all immigrant seniors[23] and over 50% among more recent immigrant seniors—were in sharp contrast to those observed among seniors in the comparison group (largely Canadian-born), where the rate was much lower (at about 2%). High chronic low-income rates were also observed among unattached immigrants and lone parents. As well, there were large differences in chronic rates by immigrant place of birth, even after adjusting for differences in other characteristics, such as official language and education at landing, years since immigration, immigrant class, age, and family type. Place of birth matters beyond the effect of these characteristics.

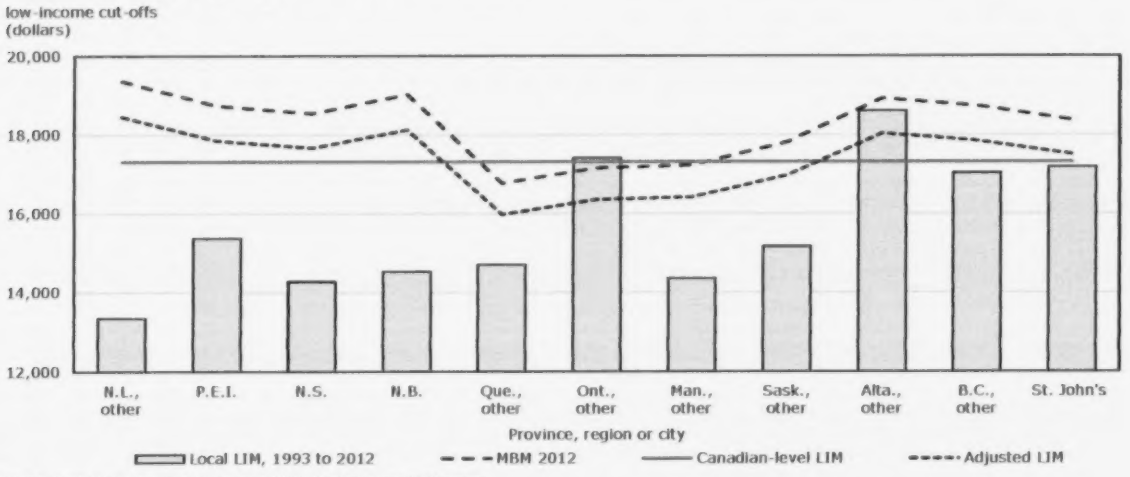
After adjusting for differences in other background characteristics, much of the language-at-landing effect disappeared. Differences in chronic low-income rates among education groups were relatively small by 2012, in part because chronic low income had risen between 2000 and 2012 among those with postgraduate degrees, while it had fallen among the less educated. As expected, the chronic low-income rate was lower among economic-class immigrants than among family-class immigrants or refugees, but the difference was not large. There was little difference in rates of chronic low income between female and male immigrants, particularly after adjusting for differences in background characteristics.

There was significant variation in the rates of chronic low income among the 29 cities/regions considered in the analysis. The highest and lowest rates differed by a factor of almost 5. Forty percent of this difference resulted from differences in immigrant background characteristics. The ranking of communities was not static but, rather, changed significantly between 2000 and 2012. Nevertheless, Canada's three largest cities were among the one-quarter of communities with the highest rates of chronic low income in both 2000 and 2012. In 2000, the one-quarter of communities with the lowest immigrant chronic rates were largely in Ontario, but by 2012 they were all in the Prairies. The chronic low-income rates among the Canadian-born population (the comparison group) in a community acts as a control for economic and policy effects that influence the community's rates of chronic low income among immigrants. However, the comparison group rates were not good predictors of the immigrant chronic rates at the city/region level. The analysis suggests that there are other unobserved factors, along with economic conditions, policy effects and immigrant background characteristics that contributed to the differences in chronic low-income rates among immigrants in various communities.

23. In Canada for 20 years or less.

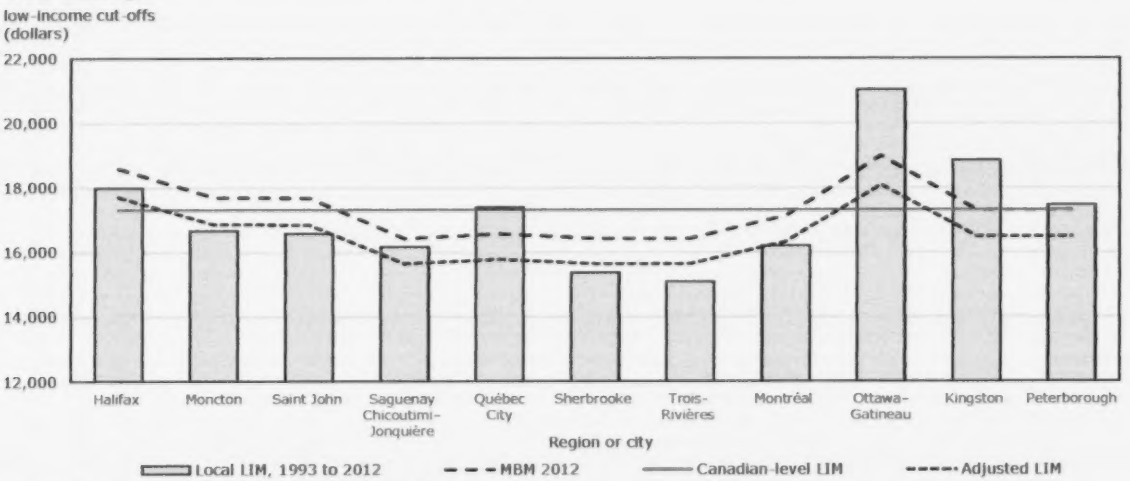
5 Charts and tables

Chart 1-1
Four alternative low-income cut-offs, by province, region or city — Newfoundland and Labrador to St. John's



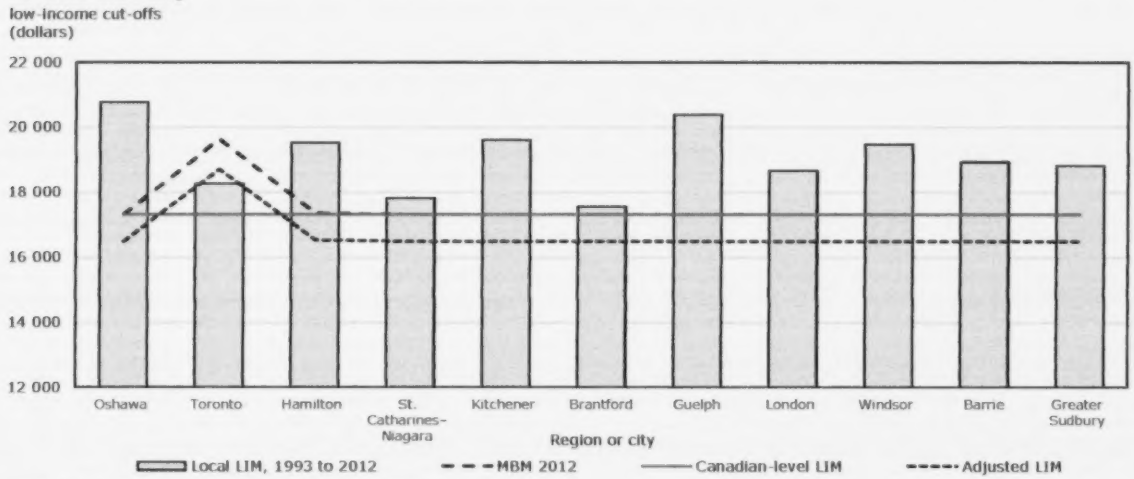
Note: LIM: Low Income Measure; MBM Market Based Measure.
Sources: Statistics Canada, Longitudinal Administrative Data base and CANSIM tables 051-0001 and 051-0056.

Chart 1-2
Four alternative low-income cut-offs, by province, region or city — Halifax to Peterborough



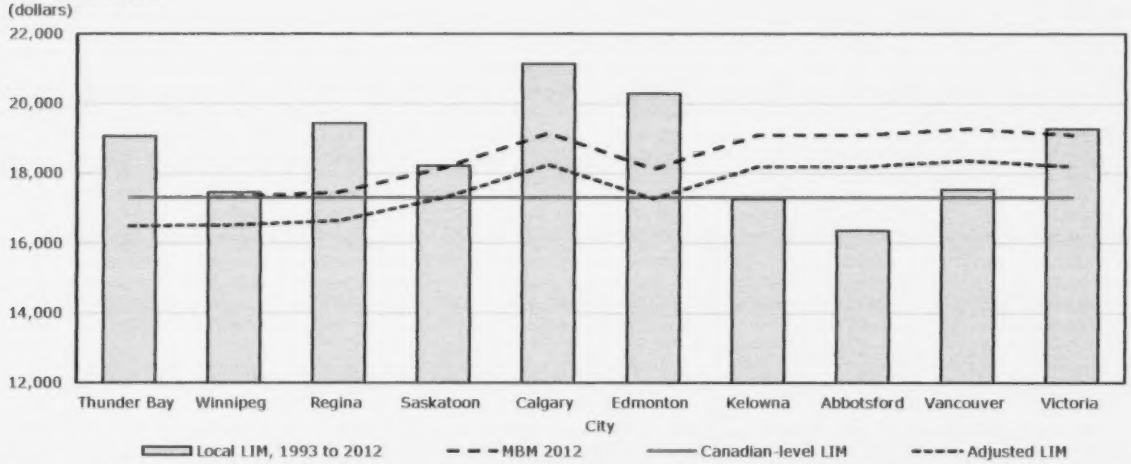
Note: LIM: Low Income Measure; MBM: Market Based Measure.
Sources: Statistics Canada, Longitudinal Administrative Data base and CANSIM tables 051-0001 and 051-0056.

Chart 1-3
Four alternative low-income cut-offs, by province, region or city — Oshawa to Greater Sudbury



Note: LIM: Low Income Measure; MBM: Market Based Measure.
Sources: Statistics Canada, Longitudinal Administrative Data base and CANSIM tables 051-0001 and 051-0056.

Chart 1-4
Four alternative low-income cut-offs, by province, region or city — Thunder Bay to Victoria



Note: LIM: Low Income Measure; MBM: Market Based Measure.
Sources: Statistics Canada, Longitudinal Administrative Data base and CANSIM tables 051-0001 and 051-0056.

Table 1

Chronic low-income rate,[1] by number of years since landing, immigrants[2] and comparison group,[3] 2000 to 2012

	Years since immigration				
	5 to 10 years	11 to 15 years	16 to 20 years	All 5 to 20 years	Comparison group
	rate				
Overall					
2000	19.5	12.9	10.4	15.8	6.1
2001	19.8	12.8	10.8	16.0	5.7
2002	19.6	13.2	11.2	16.0	5.5
2003	19.3	14.6	12.0	16.2	5.4
2004	19.0	15.6	12.2	16.3	5.4
2005	17.6	15.2	11.5	15.3	5.1
2006	17.0	15.0	11.0	14.8	4.8
2007	16.0	14.2	10.7	13.9	4.5
2008	14.9	13.6	10.9	13.3	4.3
2009	14.3	13.0	11.0	12.9	4.1
2010	14.0	13.0	11.6	12.9	4.0
2011	13.7	12.6	11.8	12.8	4.0
2012	13.3	12.0	11.5	12.3	3.7
Male					
2000	16.9	10.5	7.4	13.1	4.9
2001	17.2	10.6	7.7	13.4	4.5
2002	17.1	10.9	8.3	13.4	4.4
2003	16.7	12.0	9.0	13.5	4.3
2004	16.5	13.3	9.7	13.9	4.3
2005	14.6	12.0	8.3	12.2	4.1
2006	14.3	11.8	8.1	11.8	3.8
2007	13.4	11.1	7.9	11.0	3.7
2008	12.4	10.6	8.2	10.5	3.5
2009	11.9	10.2	8.3	10.2	3.4
2010	12.3	11.1	9.5	11.0	3.5
2011	12.0	10.8	9.6	10.9	3.4
2012	11.6	10.4	9.5	10.6	3.3
Female					
2000	21.8	15.1	13.2	18.2	7.2
2001	21.9	14.9	13.4	18.3	6.7
2002	21.7	15.2	13.7	18.2	6.5
2003	21.4	16.9	14.5	18.5	6.4
2004	21.0	17.6	14.5	18.4	6.3
2005	20.1	17.9	14.2	18.0	6.0
2006	19.4	17.6	13.6	17.3	5.6
2007	18.3	16.6	13.2	16.3	5.3
2008	17.1	15.9	13.3	15.6	5.0
2009	16.3	15.3	13.3	15.1	4.6
2010	15.4	14.7	13.4	14.5	4.5
2011	15.2	14.1	13.6	14.3	4.4
2012	14.7	13.4	13.1	13.8	4.0

1. Percentage of immigrants (or comparison group) who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. The Canadian-born and immigrants who immigrated 21 or more years earlier, who were aged 25 years and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Sources: Statistics Canada, Longitudinal Immigration Database and Longitudinal Administrative Data base.

Table 2

Chronic and transient low-income rates among immigrants[1] and the comparison group,[2] 2000 to 2012

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	Total low-income rate	Chronic rate	Less chronic rate	Transient rate	Don't know	Column 2 as percentage of column 1	Column 2 as percentage of columns 2 to 4
	rate					percent	
Landed 1 to 4 years							
2000	41.7	...	...	...	...	...	...
2003	42.7	...	...	...	...	...	...
2006	37.9	...	...	...	...	...	...
2009	34.3	...	...	...	...	...	...
2012	31.7	...	...	...	...	...	...
Landed 5 to 10 years							
2000	37.5	17.8	5.7	8.5	5.4	47.4	55.5
2003	37.5	17.9	5.4	10.0	4.2	47.7	53.7
2006	32.6	15.7	4.7	7.9	4.3	48.2	55.5
2009	29.5	13.2	4.3	8.2	3.8	44.9	51.4
2012	27.5	12.2	4.2	7.8	3.3	44.4	50.4
Landed 11 to 15 years							
2000	28.7	11.7	4.4	7.5	5.1	40.8	49.6
2003	30.2	13.4	4.5	8.2	4.2	44.2	51.4
2006	29.3	13.7	4.3	7.0	4.3	46.9	54.9
2009	27.2	12.0	4.0	7.5	3.7	44.2	51.1
2012	24.5	11.0	3.7	6.8	2.9	45.1	51.2
Landed 16 to 20 years							
2000	24.3	9.5	3.6	7.2	3.9	39.3	46.7
2003	25.8	11.0	3.8	7.6	3.5	42.6	49.2
2006	23.0	10.0	3.2	6.0	3.9	43.5	52.3
2009	23.8	10.1	3.2	6.9	3.5	42.5	50.0
2012	23.4	10.6	3.3	6.7	2.8	45.2	51.3
Landed 5 to 20 years							
2000	32.3	14.4	4.9	8.0	5.0	44.6	52.8
2003	32.7	14.9	4.8	8.9	4.1	45.7	52.3
2006	29.0	13.6	4.2	7.1	4.2	46.8	54.6
2009	26.9	11.8	3.9	7.6	3.7	44.0	50.9
2012	25.3	11.3	3.8	7.2	3.0	44.9	50.9
Comparison group							
2000	15.0	5.7	2.0	4.9	2.4	37.8	45.0
2003	13.4	5.0	1.7	4.3	2.3	37.4	45.2
2006	11.7	4.4	1.5	3.5	2.3	37.3	46.4
2009	10.7	3.7	1.3	3.2	2.5	34.2	44.8
2012	10.6	3.3	1.2	3.0	3.1	30.7	43.7

... not applicable

1. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns in the year of interest.

2. The Canadian-born and immigrants who immigrated 21 or more years earlier, who were aged 25 years and older, who lived in one of the 10 provinces and filed tax returns the year of interest.

Notes: Chronic: those who were in low income for five consecutive years up to and including the year of interest. **Less chronic:** those who were in low income four out of five consecutive years up to and including the year of interest. **Transient:** those who were in low income one to three years out of five consecutive years up to and including the year of interest. **Don't know:** those who did not file taxes in all of the four years before the year of interest.

Sources: Statistics Canada, Longitudinal Immigration Database and Longitudinal Administrative Data base.

Table 3-1

Chronic low-income rates,[1] by characteristics of immigrants in Canada for 5 to 20 years,[2] selected years

	2000	2006	2012
		rate	
Overall	**15.8**	**14.8**	**12.3**
Gender			
Male	13.1	11.8	10.6
Female	18.2	17.3	13.8
Age			
25 to 34	12.0	9.8	8.0
35 to 44	12.9	12.6	9.8
45 to 54	12.8	12.7	11.2
55 to 64	21.4	17.5	14.7
65 and older	36.2	35.6	30.5
Family type			
Unattached	28.4	28.3	25.1
Attached, no child	15.8	14.5	12.3
Attached, have a child or children	11.2	10.8	9.0
Lone parent	27.3	24.7	19.8
Official language at landing			
English	12.4	12.3	10.8
French	18.4	13.6	10.0
Both	11.7	9.3	7.3
None	20.0	18.6	15.7
Education level at landing			
Secondary or less	18.7	17.4	14.6
Trade, some postsecondary	12.0	12.2	10.7
University	11.5	11.8	10.2
Postgraduate	8.2	10.6	10.8
Immigrant class			
Provincial Nominee Program	...	4.2	5.9
Other economic class	12.3	12.3	10.2
Family	18.5	17.3	14.6
Refugee	16.4	16.1	14.5
Other class	17.6	14.8	12.9
Place of birth			
Northwestern Europe	5.2	5.7	4.2
Southeastern Europe	10.0	9.0	8.3
Africa	19.3	17.2	12.7
East Asia	22.7	21.9	17.6
South Asia	22.3	21.1	18.5
Southeast Asia	14.6	14.1	11.8
Other Asia	27.5	23.0	19.8
China	25.1	21.5	17.1
India	15.8	12.6	10.4
Philippines	7.8	6.0	4.3
Oceania[3]	3.7	4.8	4.1
Caribbean, Central and South America	15.0	11.4	9.1
Oceania, other	13.4	10.4	7.6
United States	5.9	7.0	4.8

... not applicable

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. Oceania includes Australia, New Zealand, Nauru, and Papua New Guinea.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 3-2

Chronic low-income rates,[1] by characteristics of immigrants in Canada for 5 to 10 years,[2] selected years

	2000	2006	2012
		rate	
Overall	**19.5**	**17.0**	**13.3**
Gender			
Male	16.9	14.3	11.6
Female	21.8	19.4	14.7
Age			
25 to 34	13.8	11.2	8.6
35 to 44	15.3	13.1	9.3
45 to 54	17.8	16.6	12.0
55 to 64	29.7	25.7	19.2
65 and older	51.3	58.4	56.3
Family type			
Unattached	30.6	30.1	24.9
Attached, no child	22.1	19.5	17.6
Attached, have a child or children	14.7	13.3	9.4
Lone parent	31.3	26.7	20.3
Official language at landing			
English	15.3	14.0	10.9
French	20.3	14.4	10.2
Both	14.3	8.6	6.8
None	25.6	22.9	20.3
Education level at landing			
Secondary or less	23.9	23.1	18.3
Trade, some postsecondary	14.7	14.7	11.2
University	14.0	12.9	10.5
Postgraduate	10.3	11.6	10.9
Immigrant class			
Provincial Nominee Program	...	4.2	6.1
Other economic class	15.9	14.3	10.3
Family	22.0	20.3	17.3
Refugee	22.3	20.8	16.0
Other class	19.1	20.1	19.5
Place of birth			
Northwestern Europe	6.9	6.1	3.4
Southeastern Europe	11.7	11.3	10.5
Africa	24.1	17.3	11.4
East Asia	27.6	30.8	20.7
South Asia	24.3	24.2	20.7
Southeast Asia	19.3	15.6	11.7
Other Asia	33.5	28.1	22.9
China	28.6	20.8	19.0
India	17.3	11.8	12.0
Philippines	8.4	5.9	4.2
Oceania[3]	3.5	2.9	2.5
Caribbean, Central and South America	15.6	11.0	8.5
Oceania, other	15.4	11.4	7.7
United States	6.1	4.8	3.7

... not applicable

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 10 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. Oceania includes Australia, New Zealand, Nauru, and Papua New Guinea.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 3-3
Chronic low-income rates,[1] by characteristics of immigrants in Canada for 11 to 15 years,[2] selected years

	2000	2006	2012
	rate		
Overall	**12.9**	**15.0**	**12.0**
Gender			
Male	10.5	11.8	10.4
Female	15.1	17.6	13.4
Age			
25 to 34	10.8	10.2	8.6
35 to 44	11.2	13.1	10.4
45 to 54	10.0	12.6	11.3
55 to 64	16.9	17.9	14.4
65 and older	26.8	30.4	24.2
Family type			
Unattached	25.2	28.6	23.7
Attached, no child	10.8	13.8	10.3
Attached, have a child or children	8.7	10.7	9.6
Lone parent	25.5	25.7	19.8
Official language at landing			
English	9.8	12.4	11.0
French	16.5	13.7	9.9
Both	9.8	10.4	7.6
None	16.3	18.9	14.0
Education level at landing			
Secondary or less	15.3	17.3	13.9
Trade, some postsecondary	9.7	12.0	10.8
University	8.7	11.2	10.2
Postgraduate	6.3	9.6	10.9
Immigrant class			
Provincial Nominee Program	...	...	4.0
Other economic class	9.7	12.4	10.6
Family	15.3	16.6	13.5
Refugee	14.2	16.6	14.0
Other class	13.6	15.4	15.0
Place of birth			
Northwestern Europe	5.2	6.3	4.8
Southeastern Europe	8.4	8.3	7.7
Africa	13.9	19.7	13.3
East Asia	14.4	21.3	18.7
South Asia	17.4	18.7	19.0
Southeast Asia	14.8	15.1	11.1
Other Asia	21.7	23.2	18.6
China	20.2	23.9	14.0
India	14.6	13.6	9.5
Philippines	6.1	6.0	3.5
Oceania[3]	4.3	5.9	4.4
Caribbean, Central and South America	14.0	11.7	8.9
Oceania, other	11.3	10.2	6.8
United States	6.3	8.0	4.8

... not applicable

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 11 to 15 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. Oceania includes Australia, New Zealand, Nauru, and Papua New Guinea.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 3-4

Chronic low-income rates,[1] by characteristics of immigrants in Canada for 16 to 20 years,[2] selected years

	2000	2006	2012
		rate	
Overall	**10.4**	**11.0**	**11.5**
Gender			
Male	7.4	8.1	9.5
Female	13.2	13.6	13.1
Age			
25 to 34	6.5	5.9	6.4
35 to 44	8.9	10.7	10.2
45 to 54	6.9	8.7	10.4
55 to 64	10.0	10.2	12.5
65 and older	24.0	25.5	20.6
Family type			
Unattached	27.0	25.7	26.3
Attached, no child	6.6	7.9	8.0
Attached, have a child or children	5.4	6.7	7.8
Lone parent	21.3	21.3	19.3
Official language at landing			
English	7.3	9.1	10.4
French	16.6	12.1	9.8
Both	6.8	9.1	8.5
None	12.8	13.0	13.2
Education level at landing			
Secondary or less	12.2	12.5	12.5
Trade, some postsecondary	7.4	8.7	10.1
University	5.1	8.1	9.4
Postgraduate	3.5	6.8	9.8
Immigrant class			
Provincial Nominee Program	...	...	1.1
Other economic class	6.6	8.2	9.7
Family	13.9	14.1	12.7
Refugee	10.1	11.0	12.4
Other class	8.3	11.5	12.5
Place of birth			
Northwestern Europe	4.0	4.7	4.8
Southeastern Europe	8.2	6.9	6.8
Africa	9.5	12.9	14.7
East Asia	11.2	12.0	15.9
South Asia	13.7	15.6	15.0
Southeast Asia	10.9	12.7	12.1
Other Asia	13.0	15.4	16.8
China	16.8	18.8	18.0
India	13.6	12.8	9.0
Philippines	7.9	6.0	4.7
Oceania[3]	3.7	6.1	6.3
Caribbean, Central and South America	15.1	11.2	9.7
Oceania, other	10.8	9.9	7.9
United States	5.4	8.2	6.6

... not applicable

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 16 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. Oceania includes Australia, New Zealand, Nauru, and Papua New Guinea.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 4

Chronic low-income rates,[1] comparison group,[2] selected years

	2000	2006	2012
		rate	
Overall	**6.1**	**4.8**	**3.7**
Gender			
Male	4.9	3.8	3.3
Female	7.2	5.6	4.0
Age			
25 to 34	6.6	4.6	3.8
35 to 44	6.3	5.1	4.0
45 to 54	5.5	4.6	4.3
55 to 64	7.4	5.8	5.1
65 and older	5.1	4.0	1.9
Family type			
Unattached	13.7	11.4	9.0
Attached, no child	2.1	1.8	1.3
Attached, have a child or children	3.2	2.0	1.5
Lone parent	16.8	13.2	10.0

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. The Canadian-born and immigrants who immigrated 21 or more years earlier, who were aged 25 years and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table 5

Adjusted[1] chronic low-income rates among immigrants, by immigrant[2] characteristics and years since immigration, 2012

	Sample size	Distribution	Predicted rate
	thousands	percent	rate
Overall	**2,085**	**100.0**	**12.3**
Gender			
Male	951	45.6	11.4
Female	1,134	54.4	13.1
Age			
25 to 34	393	18.8	6.9
35 to 44	666	31.9	10.5
45 to 54	578	27.7	12.6
55 to 64	262	12.6	15.4
65 and older	186	8.9	24.9
Family type			
Unattached	258	12.4	21.9
Attached, no child	404	19.4	10.0
Attached, have a child or children	1,286	61.7	10.0
Lone parent	138	6.6	21.5
Official language at landing			
English	1,097	52.6	11.7
French	98	4.7	11.4
Both	131	6.3	9.4
None	758	36.4	13.6
Education level at landing			
Secondary or less	940	45.1	13.2
Trade, some postsecondary	443	21.3	11.6
University	505	24.2	11.5
Postgraduate	196	9.4	11.8
Immigrant class			
Provincial Nominee Program	29	1.4	10.0
Other economic class	985	47.2	11.5
Family	713	34.2	13.6
Refugee	293	14.0	12.4
Other class	65	3.1	11.4
Place of birth			
Northwestern Europe	89	4.3	6.1
Southeastern Europe	280	13.4	8.7
Africa	184	8.8	14.3
East Asia	174	8.3	18.5
South Asia	186	8.9	18.9
Southeast Asia	63	3.0	10.3
Other Asia	161	7.7	19.6
China	278	13.3	14.5
India	253	12.1	10.0
Philippines	159	7.6	4.6
Oceania[3]	6	0.3	6.0
Caribbean, Central and South America	210	10.1	8.3
Oceania, other	11	0.5	8.0
United States	30	1.5	5.9
Year since immigration			
5 to 10 years	807	38.7	15.8
11 to 15 years	603	28.9	12.0
16 to 20 years	675	32.4	9.5

1. The predicted value is based on logistic regression. The dependent variable = 1 if in chronic low income, 0 otherwise. Independent variables include all the characteristics listed above plus indicators of geographic location in Canada (see Table 9).

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. Oceania includes Australia, New Zealand, Nauru, and Papua New Guinea.

Note: Numbers for sample sizes and distribution may not add up to totals because of rounding.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 6-1

Chronic low-income rates[1] among immigrants, by selected province, region or city, all immigrants in Canada for 5 to 20 years,[2] 2000 to 2012

	2000	2002	2004	2006	2008	2010	2012
				rate			
Newfoundland and Labrador	9.7	11.8	14.5	13.1	10.0	10.2	9.0
Prince Edward Island	13.4	11.9	13.0	9.4	10.2	8.8	9.4
Nova Scotia	16.6	17.7	18.9	17.5	16.4	15.7	14.5
New Brunswick	11.5	10.2	12.3	10.9	9.7	8.9	9.1
Québec City	15.4	13.3	13.3	10.6	8.7	7.3	5.8
Sherbrooke	15.9	14.7	13.4	12.0	10.0	10.8	10.3
Montréal	19.9	18.3	18.0	15.2	13.4	12.6	10.4
Quebec, other	10.8	10.4	11.3	9.2	7.4	7.4	6.4
Ottawa–Gatineau	18.0	16.7	16.8	15.8	14.3	13.4	12.3
Oshawa	7.0	7.2	8.8	8.2	6.5	7.1	6.9
Toronto	16.0	15.7	16.1	15.1	14.7	14.9	14.9
Hamilton	9.6	10.3	11.0	10.4	9.8	9.7	9.3
St. Catharines–Niagara	8.2	8.6	10.0	9.4	8.9	8.9	9.6
Kitchener	7.2	7.3	8.2	7.0	6.7	6.9	7.2
Guelph	5.3	5.0	5.8	5.5	5.3	5.9	6.2
London	13.6	13.3	14.3	12.5	11.6	11.6	12.0
Windsor	12.3	13.2	15.4	15.2	15.5	16.3	16.2
Ontario, other	7.4	7.8	9.1	7.8	6.7	6.9	6.5
Winnipeg	8.4	8.1	8.5	7.7	6.5	6.1	5.1
Manitoba, other	10.8	10.8	10.8	8.3	5.5	4.5	3.1
Regina	8.9	10.2	9.7	8.3	8.0	6.6	5.5
Saskatoon	12.0	12.0	13.4	10.6	9.4	7.8	6.5
Saskatchewan, other	13.2	13.1	15.4	12.0	8.2	6.6	4.6
Calgary	11.8	11.0	10.9	7.8	6.4	5.9	5.6
Edmonton	11.4	10.2	9.5	7.0	5.4	5.1	4.9
Alberta, other	9.6	8.9	9.2	6.7	4.8	4.1	3.7
Vancouver	20.6	22.9	23.1	21.4	17.1	16.0	15.2
Victoria	11.3	12.2	13.5	12.2	8.9	8.7	8.4
British Columbia, other	12.2	12.7	13.3	11.8	8.5	7.9	7.1

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 6-2

Chronic low-income rates[1] among immigrants, by selected province, region or city, all immigrants in Canada for 5 to 10 years,[2] 2000 to 2012

	2000	2002	2004	2006	2008	2010	2012
				rate			
Newfoundland and Labrador	10.3	15.3	16.7	11.5	11.2	10.8	9.8
Prince Edward Island	16.9	15.6	12.7	6.3	10.0	8.1	9.3
Nova Scotia	24.5	26.5	24.3	19.6	17.4	14.9	13.5
New Brunswick	12.7	11.0	11.0	10.1	9.3	9.1	9.0
Québec City	17.4	14.3	14.0	11.0	8.9	6.7	4.7
Sherbrooke	17.7	16.1	14.1	15.1	11.9	12.5	11.6
Montréal	23.1	20.9	19.3	16.3	13.6	12.2	10.4
Quebec, other	12.1	11.9	10.7	8.7	7.5	7.1	6.0
Ottawa–Gatineau	22.3	20.1	17.5	17.3	16.5	15.2	13.9
Oshawa	11.4	11.9	11.8	11.8	8.8	9.5	8.8
Toronto	19.4	18.9	18.5	17.5	17.0	16.9	17.4
Hamilton	12.2	13.7	14.2	14.5	13.0	13.0	12.3
St. Catharines–Niagara	10.7	11.6	12.9	13.2	13.1	12.2	11.5
Kitchener	9.5	9.8	9.7	9.0	9.0	9.1	10.1
Guelph	7.2	5.9	7.1	8.4	7.0	7.0	8.2
London	19.2	21.0	20.4	17.7	16.5	15.1	14.5
Windsor	16.4	17.6	18.4	18.3	19.8	21.0	20.4
Ontario, other	10.1	11.0	11.6	10.0	8.4	7.7	7.6
Winnipeg	10.8	10.7	10.5	9.0	7.6	6.3	5.2
Manitoba, other	15.3	14.8	14.4	9.2	5.2	3.9	3.0
Regina	11.9	13.7	9.1	8.0	9.0	8.3	6.4
Saskatoon	14.0	13.9	15.5	11.2	10.5	8.7	6.8
Saskatchewan, other	17.6	15.8	14.6	12.5	8.6	6.3	4.0
Calgary	15.5	13.8	12.7	9.3	7.2	6.4	6.1
Edmonton	16.0	14.2	12.3	8.8	6.5	5.6	5.4
Alberta, other	12.6	11.2	10.3	7.1	5.0	3.7	3.5
Vancouver	23.9	26.8	26.5	24.1	18.9	17.0	16.1
Victoria	13.8	15.1	15.0	14.3	9.7	9.3	7.9
British Columbia, other	13.7	13.6	13.7	11.3	9.0	7.4	6.6

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 10 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 6-3

Chronic low-income rates[1] among immigrants, by selected province, region or city, all immigrants in Canada for 11 to 15 years,[2] 2000 to 2012

	2000	2002	2004	2006	2008	2010	2012
				rate			
Newfoundland and Labrador	9.6	10.3	14.6	14.6	9.8	10.9	9.2
Prince Edward Isalnd	14.2	10.9	15.9	14.3	11.1	8.6	7.7
Nova Scotia	11.7	11.9	17.9	19.7	18.5	18.7	15.8
New Brunswick	11.6	9.3	15.5	12.4	10.5	9.3	10.0
Québec City	14.3	12.2	12.9	10.4	8.7	8.0	7.4
Sherbrooke	12.2	12.9	12.6	8.1	8.0	9.5	10.7
Montréal	17.9	17.1	18.4	15.5	13.8	12.8	10.8
Quebec, other	10.0	9.8	12.6	10.1	7.2	7.3	6.6
Ottawa–Gatineau	15.2	15.4	18.1	16.4	13.3	11.8	11.4
Oshawa	4.5	5.0	8.4	8.0	6.6	6.5	6.6
Toronto	12.6	12.9	15.4	15.0	14.4	14.3	13.9
Hamilton	8.8	8.0	9.9	9.6	9.7	8.9	8.7
St. Catharines–Niagara	7.6	6.8	9.2	7.8	7.9	9.3	9.7
Kitchener	5.8	5.8	8.0	6.7	5.9	5.8	6.2
Guelph	3.7	4.2	5.6	4.7	5.5	6.2	5.9
London	10.2	10.0	13.0	12.3	11.5	11.9	12.5
Windsor	7.8	9.7	14.8	15.5	14.2	15.6	15.8
Ontario, other	6.8	6.5	8.9	8.2	7.3	7.6	6.5
Winnipeg	7.6	6.2	7.7	7.9	6.5	6.5	5.4
Manitoba, other	9.3	8.0	9.6	10.0	6.7	5.1	2.7
Regina	6.9	7.9	11.1	8.8	7.5	5.7	3.9
Saskatoon	13.1	11.1	11.7	11.3	9.6	7.0	6.6
Saskatchewan, other	12.7	13.1	18.7	13.1	7.7	7.2	4.3
Calgary	10.2	8.8	10.0	7.4	6.2	5.8	5.4
Edmonton	9.5	8.0	9.0	7.2	5.2	5.0	4.7
Alberta, other	8.6	8.3	9.2	7.2	4.8	4.4	4.0
Vancouver	17.1	18.3	21.1	21.6	18.0	16.6	14.8
Victoria	10.5	10.5	13.0	12.2	9.9	9.7	8.3
British Columbia, other	12.3	12.1	13.1	13.0	9.0	8.8	7.5

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 11 to 15 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 6-4

Chronic low-income rates[1] among immigrants, by selected province, region or city, all immigrants in Canada for 16 to 20 years,[2] 2000 to 2012

	2000	2002	2004	2006	2008	2010	2012
				rate			
Newfoundland and Labrador	8.8	7.5	11.1	13.9	8.5	8.6	7.1
Prince Edward Isalnd	8.9	9.3	10.2	8.6	9.8	10.1	11.7
Nova Scotia	8.6	8.0	10.6	11.5	12.4	14.0	14.8
New Brunswick	10.3	10.1	10.2	10.6	9.6	8.2	8.1
Québec City	12.1	12.5	12.1	10.1	8.3	8.2	6.4
Sherbrooke	14.5	12.0	12.2	9.1	8.7	8.2	7.0
Montréal	15.1	14.6	15.1	13.3	12.7	13.0	10.1
Quebec, other	9.7	8.5	10.8	9.3	7.5	8.2	7.2
Ottawa–Gatineau	10.2	10.4	12.7	12.5	12.8	12.8	11.5
Oshawa	3.8	4.0	6.0	5.2	4.6	5.4	5.5
Toronto	10.9	11.6	12.4	11.4	12.0	13.0	13.2
Hamilton	5.1	6.8	7.6	6.2	6.5	7.1	6.7
St. Catharines–Niagara	4.8	5.8	6.9	6.4	5.7	5.2	7.0
Kitchener	4.0	4.8	5.9	4.9	4.8	5.1	4.8
Guelph	2.5	4.5	4.1	2.8	3.3	4.5	4.2
London	5.9	6.5	9.0	7.9	7.7	8.0	8.3
Windsor	6.0	6.3	9.0	8.6	11.1	11.8	12.6
Ontario, other	4.9	5.6	6.8	5.5	4.7	5.5	5.3
Winnipeg	6.2	7.2	7.6	6.3	5.5	5.7	4.7
Manitoba, other	8.1	8.7	6.3	4.4	4.9	5.5	3.9
Regina	6.3	7.8	8.4	8.2	7.1	4.5	5.4
Saskatoon	8.8	9.3	11.8	8.4	7.1	6.8	5.5
Saskatchewan, other	8.8	8.8	12.4	9.9	8.2	6.6	6.6
Calgary	7.2	8.0	8.8	5.8	5.2	5.1	5.1
Edmonton	6.4	6.4	6.4	4.8	4.4	4.4	4.3
Alberta, other	6.8	5.7	7.4	5.6	4.5	4.4	3.6
Vancouver	13.9	16.1	17.1	15.8	13.5	14.4	14.6
Victoria	8.4	9.3	11.8	9.7	7.1	7.4	9.0
British Columbia, other	9.8	11.6	12.8	10.9	7.4	7.7	7.5

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 16 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 7

Chronic low-income rates,[1] by selected province, region or city, comparison group,[2] 2000 to 2012

	2000	2002	2004	2006	2008	2010	2012
				rate			
Newfoundland and Labrador	15.2	13.3	12.1	10.4	8.4	6.5	5.7
Prince Edward Isalnd	8.2	7.0	6.4	5.6	5.1	4.4	4.1
Nova Scotia	10.0	8.9	8.2	7.3	6.8	6.2	5.8
New Brunswick	10.8	10.1	9.3	8.2	7.1	6.4	6.0
Québec City	5.4	4.8	4.3	3.8	3.4	3.0	2.3
Sherbrooke	6.8	6.1	5.5	4.7	4.5	4.3	3.8
Montréal	6.2	5.3	5.1	4.6	4.4	4.5	3.6
Quebec, other	7.0	6.2	5.7	5.1	4.8	4.4	3.6
Ottawa–Gatineau	5.0	4.4	4.4	4.0	3.7	3.5	3.0
Oshawa	2.8	2.8	2.8	2.4	2.3	2.3	2.1
Toronto	4.9	4.6	4.9	4.8	4.6	4.7	4.8
Hamilton	3.1	3.1	3.2	3.0	2.8	2.8	2.6
St. Catharines–Niagara	3.3	3.2	3.3	3.3	3.0	3.0	3.0
Kitchener	2.3	2.2	2.5	2.3	2.1	2.1	2.1
Guelph	2.2	2.3	2.5	2.2	2.1	2.2	2.2
London	3.8	3.7	3.9	3.7	3.4	3.1	3.0
Windsor	2.9	3.0	3.3	3.3	3.3	3.5	3.6
Ontario, other	4.2	4.0	4.0	3.7	3.3	3.1	3.0
Winnipeg	5.5	5.0	5.1	4.5	4.0	3.7	3.5
Manitoba, other	11.4	10.0	9.5	9.3	8.4	8.0	7.8
Regina	5.5	5.2	5.0	4.3	3.6	2.6	2.3
Saskatoon	6.6	6.2	6.0	5.1	3.8	2.6	2.3
Saskatchewan, other	10.4	9.4	9.1	8.2	6.7	5.1	4.7
Calgary	3.4	2.9	2.9	2.1	1.7	1.8	1.5
Edmonton	4.2	3.6	3.2	2.5	2.0	1.8	1.3
Alberta, other	6.5	5.4	4.9	3.6	3.1	2.8	2.3
Vancouver	6.1	6.2	6.1	5.6	4.7	4.6	4.7
Victoria	5.7	5.6	5.4	4.8	3.9	3.6	3.5
British Columbia, other	7.4	7.3	7.0	6.0	4.8	4.5	4.5

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. The Canadian-born and immigrants who landed in Canada 21 or more years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 8

Adjusted[1] chronic low-income rates among immigrants,[2] by selected province, region or city, 2012

	Sample size	Distribution	Predicted rate
	thousands	percent	rate
Overall	**2,085**	**100.0**	**12.3**
Newfoundland and Labrador	2	0.1	10.7
Prince Edward Isalnd	1	0.0	11.6
Nova Scotia	10	0.5	16.2
New Brunswick	5	0.2	11.7
Québec City	11	0.5	8.4
Sherbrooke	4	0.2	13.1
Montréal	252	12.1	11.7
Quebec, other	13	0.6	9.7
Ottawa–Gatineau	69	3.3	12.1
Oshawa	12	0.6	8.2
Toronto	890	42.7	14.1
Hamilton	38	1.8	10.1
St. Catharines–Niagara	11	0.5	11.0
Kitchener	31	1.5	8.2
Guelph	8	0.4	6.9
London	19	0.9	12.3
Windsor	21	1.0	15.0
Ontario, other	37	1.8	8.6
Winnipeg	32	1.6	7.0
Manitoba, other	7	0.3	5.3
Regina	5	0.3	5.8
Saskatoon	8	0.4	6.6
Saskatchewan, other	4	0.2	5.9
Calgary	110	5.3	6.0
Edmonton	67	3.2	5.4
Alberta, other	23	1.1	5.0
Vancouver	344	16.5	13.9
Victoria	11	0.5	9.2
British Columbia, other	41	2.0	8.7

1. The predicted value is based on logistic regression. The dependent variable = 1 if in chronic low income, 0 otherwise. Independent variables include all the characteristics listed in Table 5 and indicators for city/region of residence (see Table 9).

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Note: Figures in the distribution column may not add up to 100.0% because of rounding.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 9-1

Chronic low-income rates[1] among immigrants,[2] by selected province, region or city, arranged by quartile, 2000

	2000
	rate
First quartile	
Vancouver	20.6
Montréal	19.9
Ottawa–Gatineau	18.0
Nova Scotia	16.6
Toronto	16.0
Sherbrooke	15.9
Québec City	15.4
Second quartile	
London	13.6
Prince Edward Island	13.4
Saskatchewan, other	13.2
Windsor	12.3
British Columbia, other	12.2
Saskatoon	12.0
Calgary	11.8
Third quartile	
New Brunswick	11.5
Edmonton	11.4
Victoria	11.3
Manitoba, other	10.8
Quebec, other	10.8
Newfoundland and Labrador	9.7
Hamilton	9.6
Alberta, other	9.6
Fourth quartile	
Regina	8.9
Winnipeg	8.4
St. Catharines–Niagara	8.2
Ontario, other	7.4
Kitchener	7.2
Oshawa	7.0
Guelph	5.3

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 9-2

Chronic low-income rates[1] among immigrants,[2] by selected province, region or city, arranged by quartile, 2012

	2012
	rate
First quartile	
Windsor	16.2
Vancouver	15.2
Toronto	14.9
Nova Scotia	14.5
Ottawa–Gatineau	12.3
London	12.0
Montréal	10.4
Second quartile	
Sherbrooke	10.3
St. Catharines–Niagara	9.6
Prince Edward Isalnd	9.4
Hamilton	9.3
New Brunswick	9.1
Newfoundland and Labrador	9.0
Victoria	8.4
Third quartile	
Kitchener	7.2
British Columbia, other	7.1
Oshawa	6.9
Ontario, other	6.5
Saskatoon	6.5
Quebec, other	6.4
Guelph	6.2
Québec City	5.8
Fourth quartile	
Calgary	5.6
Regina	5.5
Winnipeg	5.1
Edmonton	4.9
Saskatchewan, other	4.6
Alberta, other	3.7
Manitoba, other	3.1

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 10-1
Ratio of chronic low-income rates[1] among immigrants[2] to that among the comparison group,[3] 2000

	2000
	rate
First quartile	
Windsor	4.2
Ottawa–Gatineau	3.6
London	3.6
Calgary	3.5
Vancouver	3.4
Toronto	3.2
Montréal	3.2
Second quartile	
Hamilton	3.1
Kitchener	3.0
Québec City	2.9
Edmonton	2.7
Oshawa	2.5
St. Catharines–Niagara	2.5
Guelph	2.4
Third quartile	
Sherbrooke	2.3
Victoria	2.0
Saskatoon	1.8
Ontario, other	1.7
Nova Scotia	1.7
British Columbia, other	1.6
Prince Edward Isalnd	1.6
Regina	1.6
Fourth quartile	
Winnipeg	1.5
Quebec, other	1.5
Alberta, other	1.5
Saskatchewan, other	1.3
New Brunswick	1.1
Manitoba, other	0.9
Newfoundland and Labrador	0.6

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. The Canadian-born and immigrants who landed in Canada 21 or more years ago, who were aged 25 years and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Sources: Statistics Canada, Longitudinal Immigration Database and Longitudinal Administrative Data base.

Table 10-2
Ratio of chronic low-income rates[1] among immigrants[2] to that among the comparison group,[3] 2012

	2012
	rate
First quartile	
Windsor	4.5
Ottawa–Gatineau	4.1
London	3.9
Calgary	3.8
Edmonton	3.7
Hamilton	3.5
Kitchener	3.4
Second quartile	
Oshawa	3.3
Vancouver	3.3
St. Catharines–Niagara	3.2
Toronto	3.1
Montréal	2.9
Guelph	2.9
Saskatoon	2.8
Third quartile	
Sherbrooke	2.7
Québec City	2.5
Nova Scotia	2.5
Regina	2.5
Victoria	2.4
Prince Edward Isalnd	2.3
Ontario, other	2.2
Quebec, other	1.8
Fourth quartile	
British Columbia, other	1.6
Alberta, other	1.6
Newfoundland and Labrador	1.6
New Brunswick	1.5
Winnipeg	1.4
Saskatchewan, other	1.0
Manitoba, other	0.4

1. Percentage of immigrants who were in low income for five consecutive years, up to and including the year of interest.
2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.
3. The Canadian-born and immigrants who landed in Canada 21 or more years ago, who were aged 25 years and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

Sources: Statistics Canada, Longitudinal Immigration Database and Longitudinal Administrative Data base.

Table 11-1

Coefficients from logit regression of chronic low-income rates,[1] by immigrant[2] characteristics, 2012

	Regression results		Observations
	coefficient	standard error	number[3]
Year since immigration			
5 to 10 years (reference group)	...	...	806,500
11 to 15 years	-0.362	0.006	603,400
16 to 20 years	-0.643	0.006	674,800
Age			
25 to 34	-0.488	0.008	392,700
35 to 44 (reference group)	...	...	665,900
45 to 54	0.223	0.006	578,300
55 to 64	0.479	0.008	262,000
65 and older	1.144	0.008	185,700
Gender			
Male (reference group)	...	...	950,900
Female	0.180	0.005	1,133,900
Family type			
Unattached	1.012	0.006	257,700
Attached, no child	-0.002	0.007	403,600
Attached, have a child or children (reference group)	...	...	1,285,700
Lone parent	0.981	0.008	137,700
Official language at landing			
English (reference group)	...	...	1,097,200
French	-0.030	0.014	98,500
Both	-0.270	0.013	131,200
None	0.185	0.005	757,900
Education level at landing			
Secondary or less (reference group)	...	...	940,100
Trade, some postsecondary	-0.161	0.006	443,100
University	-0.170	0.007	505,500
Postgraduate	-0.143	0.009	196,000
Immigrant class			
Provincial Nominee Program	-0.174	0.027	28,800
Other economic class (reference group)	...	...	985,000
Family	0.213	0.006	712,900
Refugee	0.104	0.007	292,800
Other class	-0.011	0.013	65,200
Place of birth			
Northwestern Europe	-0.406	0.019	89,100
Southeast Europe (reference group)	...	...	280,100
Africa	0.610	0.011	184,100
East Asia	0.949	0.010	173,700
South Asia	0.977	0.010	186,100
Southeast Asia	0.196	0.015	62,700
Other Asia	1.032	0.010	161,100
China	0.623	0.009	278,000
India	0.171	0.010	253,000
Philippines	-0.726	0.015	159,500
Oceania[4]	-0.422	0.069	5,600
Caribbean, Central and South America	-0.057	0.011	210,100
Oceania, other	-0.091	0.038	11,300
United States	-0.439	0.029	30,300

... not applicable

1. Dependent variable = 1 if in chronic low income, 0 otherwise.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. For confidentiality reasons, the number of observations has been rounded to hundreds.

4. Oceania includes Australia, New Zealand, Nauru, and Papua New Guinea.

Source: Statistics Canada, Longitudinal Immigration Database.

Table 11-2

Coefficients from logit regression of chronic low-income rates,[1] by province, region or city, immigrants,[2] 2012

	Regression results		Observations
	coefficient	standard error	number[3]
Province, region or city of residence			
Newfoundland and Labrador	-0.348	0.083	1,900
Prince Edward Isalnd	-0.242	0.111	1,000
Nova Scotia	0.187	0.030	10,000
New Brunswick	-0.233	0.053	4,700
Québec City	-0.639	0.043	10,600
Sherbrooke	-0.090	0.056	3,700
Montréal	-0.239	0.009	251,500
Quebec, other	-0.459	0.037	13,000
Ottawa–Gatineau	-0.188	0.013	69,500
Oshawa	-0.667	0.037	12,300
Toronto (reference group)	...	...	889,500
Hamilton	-0.420	0.019	38,400
St. Catharines–Niagara	-0.308	0.034	10,800
Kitchener	-0.666	0.023	30,800
Guelph	-0.868	0.049	7,800
London	-0.170	0.024	19,100
Windsor	0.083	0.020	20,800
Ontario, other	-0.613	0.022	36,500
Winnipeg	-0.843	0.027	32,500
Manitoba, other	-1.166	0.073	6,700
Regina	-1.063	0.061	5,300
Saskatoon	-0.913	0.048	7,600
Saskatchewan, other	-1.035	0.082	3,600
Calgary	-1.031	0.014	109,900
Edmonton	-1.154	0.019	67,400
Alberta, other	-1.230	0.036	23,000
Vancouver	-0.017	0.006	343,900
Victoria	-0.527	0.035	11,400
British Columbia, other	-0.597	0.020	41,300
Constant	-2.526	0.012	...

... not applicable

1. Dependent variable = 1 if in chronic low income, 0 otherwise.

2. Immigrants who landed in Canada 5 to 20 years ago, who were aged 25 and older, who lived in one of the 10 provinces and filed tax returns for five consecutive years, up to and including the year of interest.

3. For confidentiality reasons, the number of observations has been rounded to hundreds.

Source: Statistics Canada, Longitudinal Immigration Database.

Appendix A: Issues when choosing how to measure low income

There are a number of issues to consider when choosing how to measure an annual low-income rate. Some are:

- whether to use a relative or absolute measure
- how and whether issues of social exclusion should be incorporated in the measurement
- whether relative deprivation measures contribute to poverty measurement
- whether measures should be based on consumption or income
- the role of wealth (as opposed to income) in poverty measurement
- numerous technical issues related to exactly how a low-income cut-off is determined (Wagle 2002).
- If producing regional measures, how to account for differences in the cost of basic necessities among regions.

In Canada, most operational definitions of low income are based on some form of annual disposable family income. The one major exception is the means test applied by social assistance programs, which is typically a combination of assets and income. However, low-income measures are typically based on family income—low-income cut-offs are established and persons below their relevant cut-off are said to be in low income. The most prominent cut-offs include Statistics Canada's low-income cut-off (LICO), and a version of the Low Income Measure (LIM), which is typically set at one-half of the median income of Canadians (see Murphy, Zhang and Dionne 2012 for a review of Canadian low-income cut-offs). However, in the analysis of regional variations in low-income rates, these measures are unable to adequately account for regional differences in the cost of living. For example, if a national LIM (one-half of the median income of Canadians) is used as a cut-off and applied to family incomes in all cities, the low-income rate will be overestimated in cities where the basic necessities are less expensive. That is because the amount of, say, food or shelter that can be purchased with an income at the level of the low-income cut-off will be greater in cities with lower living costs.

Various studies have demonstrated that inequality and low-income measures are affected by regional price variations, and that rankings of regions in particular change when differences in the cost of living are taken into account (Pendakur 2002; Muller 2005; Jolliffe 2006; Zhang, Mihorean and Michaud 2010).

In this paper, a regionally adjusted LIM is used as the low-income measure (see the main body of the report). The national LIM (0.5 the median income) is adjusted using the regional Market Basket Measure (MBM). Regional price indexes other than the MBM could potentially be used in low-income research, but these have shortcomings (Zhang, Milhorean and Michaud 2010). Statistics Canada produces an intercity price index, but it only covers 11 cities, and hence cannot be used nationally. Pendakur (2002) generated a regional price index that was used in research on poverty and income inequality, but it was based on relatively old data and excluded communities with populations under 30,000. Furthermore, these and similar indexes are based on general price levels. The MBM is designed for poverty measurement and the basket of goods and services includes basic necessities appropriate for research on low-income rates. For these reasons, this study uses the MBM to measure differences in the cost of basic necessities across cities/regions.

Appendix B: The effect of averaging income over five years

Another measurement issue relates to treating low income as a discrete state—one is either in or not in low income in a given year. Such an approach ignores the "depth" of low income (Rodgers and Rodgers 1993; Hulme, Moore and Shepherd 2001). Hence, a person whose family is well below the low-income cut-off for four consecutive years will not be classified as being in chronic low income if his or her family moves marginally above the low-income cut-off in the fifth year. Conversely, an individual in a family that is just below the low-income cut-off in all five years will be considered as being in chronic low income. The approach that focuses on five consecutive years implicitly assumes that income cannot be transferred between years, and that consumption is not smoothed over time by saving in some years and de-saving in others. To overcome this problem, an alternative definition uses a "permanent income" approach. Average family income[24] over the five consecutive years prior to and including the year of interest, say 2010, is calculated. In this example, if the average annual income over the entire 2006-to-2010 period is below the low-income cut-off, all individuals in that family are said to be in chronic low income in 2010. This approach takes the depth of low income in all years into account.

Chronic low income is more prevalent using this approach. For example, in 2012, the chronic low-income rate—the proportion of immigrants[25] who were in chronic low income—was 12.3% based on the "in low income all five years" method,[26] but 23.9% based on the "average family income over the five years" measure. The latter definition produces a much higher rate because one or two years of very low income—well below the low-income cut-off—can result in chronic low income over the entire five-year period, even if the family is marginally above the low-income cut-off for one or two years.

Of course, all measures of low income are arbitrary to some extent. This does not imply that they are not useful. Comparisons to some benchmark are often more meaningful than the absolute value of the rate itself. Has the rate been rising or falling since a base year or how does the immigrant chronic low-income rate compare with that of the Canadian-born? When looked at in this way, the two approaches produce similar results. Using the "in low income all five years" method, chronic low income among immigrants in 2012 was 3.3 times higher than that of the comparison group (mainly the Canadian-born), while the "average family income over the five years" method yields a rate 3.1 times higher. Both methods registered a 22% decline in the chronic low-income rate from 2000 to 2012. In this paper, the "in low income in all five years" definition of chronic low income is used for the reasons mentioned in the body of the report.

24. Adult-equivalent adjusted after taxes and transfers.
25. Aged 25 and older and in Canada for 5 to 20 years.
26. If a more relaxed definition is used (say, in low income four of the five years), the rate increases to 16.3%.

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